Sprague Energy	**)**	**Departmental**
Cumberland County	**)**	**Findings of Fact and Order**
South Portland, Maine	**)**	**Air Emission License**
A-179-71-D-R	**)**	

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Sprague Energy of South Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their bulk storage and distribution facility.

B. Emission Equipment

Sprague Energy is authorized to operate the following equipment:

Fuel Burning Equipment

Equipment	**Maximum Capacity (MMBtu/hr)**	**Maximum Firing Rate (gal/hr)**	**Fuel Type, % sulfur**	**Stack #**
Boiler #1	7.5	59.6	fuel oil at 0.5%	1
Boiler #2	5.0	36	fuel oil at 0.5%	2
Boiler #3	1.0	7.6	fuel oil at 0.5%	3
Boiler #4	2.5	19	fuel oil at 0.5%	4

Bulk Storage Equipment

Tank Number	**Capacity (bbls)**	**Current Product Stored**	**Roof Type**
K-1*	17,850	Kaolin	Cone Fixed
K-2*	17,850	Kaolin	Cone Fixed
K-3*	4,800	Kaolin	Cone Fixed
K-4*	4,800	Kaolin	Cone Fixed
3	77,100	#2 F/O	Cone Fixed

4	31,400	Kerosene	Internal Floating
5	31,700	Kerosene	Internal Floating
7	88,700	Kerosene	Internal Floating
101	30,900	#2 F/O	Internal Floating
103	13,900	Kerosene	Cone Fixed
104	20,000	Kerosene	Internal Floating
105	89,300	#2 F/O	Cone Fixed
111	50,600	#2 F/O	Internal Floating
112	59,700	Kerosene	Internal Floating
113	59,700	Kerosene	Internal Floating
114	59,700	Kerosene	Internal Floating
117	77,000	Diesel	Cone Fixed
118	92,200	#2 F/O	Cone Fixed
R-6	714	Diesel	Cone Fixed
CH-8	51,800	Diesel	Cone Fixed
CH-9	51,800	Diesel	Cone Fixed
KO-9	70,400	Kerosene	Internal Floating
KO-7	30,700	Kerosene	Internal Floating
KO-13	76,800	F/O	Cone Fixed
KO-14	104,500	F/O	Cone Fixed
KO-28	41,500	Aviation Gasoline	Internal Floating
KO-1	15,000	Asphalt	Cone Fixed
KO-2	15,000	Asphalt	Cone Fixed
KO-8	110,000	Asphalt	Cone Fixed
KO-15	25,000	Asphalt	Cone Fixed
KO-16	1,500	Asphalt	Cone Fixed
KO-17	1,500	Asphalt	Cone Fixed
KO-18	600	Asphalt	Cone Fixed
KO-19	600	Asphalt	Cone Fixed
KO-20	600	Asphalt	Cone Fixed
KO-21	600	Asphalt	Cone Fixed
KO-22	120	Asphalt	Cone Fixed
KO-24	900	Asphalt	Cone Fixed
KO-25	900	Asphalt	Cone Fixed
KO-26	500	Asphalt	Cone Fixed
KO-27	250	Asphalt	Cone Fixed
KO-29	450	Asphalt	Cone Fixed
A-7*	238	Additive	Cone Fixed
A-8*	150	Additive	N/A
A-30*	50	Additive	N/A
KO-6	4,600	O/S	Cone Fixed
KO-5	400	O/S	Cone Fixed

KO-4	400	O/S	Cone Fixed
KO-3	14,100	O/S	Internal Floating
KO-23	400	O/S	Cone Fixed
KO-12	2,300	O/S	Cone Fixed
KO-11	500	O/S	Cone Fixed
KO-10	500	O/S	Cone Fixed
PT-1	22,200	O/S	Cone Fixed
PT-2	9,500	O/S	Cone Fixed
28	80,750	O/S	Cone Fixed
31	3,020	O/S	Cone Fixed
32	3,020	O/S	Cone Fixed
40	30,500	O/S	External Floating
42	154,350	O/S	Cone Fixed
102	32,000	O/S	Internal Floating

*: these tanks are noted for completeness only
O/S: out of service tank

Note: those tanks equipped with an internal floating roof are able to store gasoline as well as distillate products

Process Equipment

Equipment	**Control Rate**
(2) McGill Carbon Absorption Units	35 mg/liter (each)

C. Application Classification

The application for Sprague Energy does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 - #4

Sprague Energy operates boilers #1 - #4 for tank and facility heating demands. Boilers #1 - #4 each have a maximum design heat input of 7.5, 5.0, 1.0, and 2.5 MMBtu/hr, respectively, firing fuel oil with a maximum sulfur content not to exceed 0.5% by weight. Due to the size of each of these units none are subject to EPA New Source Performance Standards (NSPS) for boilers with a maximum design heat input of greater than 10 MMBtu/hr.

C. Vapor Recovery Units (2 McGill Carbon Absorption Units)

Sprague operates two separate loading racks at the facility. Loading rack #1 (the existing Koch facility previously licensed under A-419) is equipped with 2 top loading positions and 3 bottom loading positions. Loading rack #2 (the existing BP Oil facility previously licensed under A-260) is equipped with 6 loading bays for all products at the facility. Each of these racks are controlled by the use of a McGill carbon absorption unit, vapor recovery unit #1 at loading rack #1 and vapor recovery unit #2 at loading rack #2. The existing loading rack #2 was equipped with a refrigeration unit. However, when Sprague acquired this facility they brought the existing carbon unit for the loading rack that was in operation under a license for Getty Oil to this loading area to replace the refrigeration unit. Each vapor recovery unit is rated at 35 milligrams of VOC per liter of product transferred. Sprague Energy will conduct annual compliance tests to demonstrate that each of these units is meeting the required collection efficiency.

D. Distillate and Asphalt Storage Tanks

Sprague currently operates 40 tanks with cone fixed roofs capable of storing petroleum products. 16 of these tanks are used for asphalt storage from the acquired Koch facility. Each of these tanks varies in size and throughput depending on the demand for distillates throughout the year.

Asphalt operations are conducted separately. There is a loading area designated for the top loading of asphalt into tank trucks.

E. Gasoline Storage Tanks

In addition to the above distillate storage, Sprague also operates several tanks with internal floating roofs (13) (and one external floating roof tank that is currently out of service) capable of storing gasoline. At this time there is no gasoline storage at this facility, however, the capacity is there. During this time, these tanks are being utilized for additional distillate storage as needed. These tanks are operated as swing tanks depending on demand.

Upon removing an internal floating roof tank from service for cleaning and/or repair, Sprague plans to install double seals on the internal floating roofs prior to putting the tank back into gasoline service to ensure reduction in emissions. As these tanks are put back into gasoline service, Sprague shall ensure that each tank is operated and maintained according the requirements specified in the Order for gasoline storage tanks.

Tank KO-28 was recently put into aviation gasoline service, beginning in February of 2000. This tank is equipped with double seals on the internal floating roof.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

Pollutant	**Tons/Year**
PM	50
PM_{10}	25
SO_2	50
NO_x	100
CO	250

These criteria pollutant emissions from this source are negligible, therefore, monitoring and modeling are not required for this license.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-179-71-D-R subject to the following conditions:

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege.

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or

b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

SPECIAL CONDITIONS

(16) Boiler Emissions

A. Boilers #1 - #4 shall be limited to the firing fuel oil with a maximum sulfur content not to exceed 0.5% by weight.

B. The emissions from boiler #1 - #4 shall each not exceed the following:

Equipment		**PM**	**PM_{10}**	**SO_2**	**NO_x**	**CO**	**VOC**
Boiler #1	lb/MMBtu	0.20	0.20	0.51	0.36	0.04	0.01
	lb/hr	1.5	1.5	3.8	2.7	0.30	0.08
Boiler #2	lb/MMBtu	0.20	0.20	0.51	0.36	0.04	0.01
	lb/hr	1.0	1.0	2.6	1.8	0.20	0.05
Boiler #3	lb/MMBtu	-	-	-	-	-	-
	lb/hr	0.20	0.20	0.51	0.36	0.04	0.01
Boiler #4	lb/MMBtu	-	-	-	-	-	-
	lb/hr	0.50	0.50	1.3	0.90	0.10	0.03

C. Visible emissions from boilers #1 - #4 shall each not exceed 30% opacity based on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in any 3-hour period.

D. Sprague Energy shall be limited to an annual fuel consumption limit of 500,000 gallons in boilers #1 - #4 (based on a 12 month rolling total).

E. Sprague Energy shall maintain records of all fuel oil delivered to boilers #1-#4 to include quantity and sulfur content of each shipment.

(17) Loading Racks and Carbon Absorption Units

A. The bulk terminal shall be equipped and maintained with a carbon absorption unit that captures displaced VOC vapors whenever gasoline (or aviation gas) is being transferred to a tank truck at each loading rack.

B. All loading and vapor lines shall be equipped and maintained in good working order such that vapor tight fittings close automatically when disconnected and the pressure in the vapor collection system shall not be allowed to exceed +18 inches of water or a vacuum exceeding –6 inches of water.

C. Gasoline loading shall be allowed only into tank trucks and trailers that have been properly certified pursuant to 40 CFR Appendix A, Method 27 and maintained and labeled as vapor-tight in accordance with Maine Air Regulations Chapter 120.

D. Any tank truck carrying gasoline or which has carried gasoline as the most recent previous load shall utilize the vapor collection system during the entire loading process.

E. 100% of the lower explosive limit (LEL) obtained within one inch around any potential leak source of the tank truck, including all loading couplings, vapor lines and fittings employed in the transfer of gasoline, are prohibited.

F. VOC emissions from the carbon absorption units shall not exceed 35 milligrams per liter of product transferred. Compliance with this limit shall be determined by methods promulgated in 40 CFR Part 60.503 or other methods approved by the Department.

G. Sprague Energy shall conduct an annual compliance test of vapor recovery unit #1 prior to May 15th of each year beginning in the year 2000. A report containing the test results shall be submitted to the Department within 30 days of the completion of testing in accordance with the Department's stack test protocol.

H. Sprague Energy shall conduct a compliance test of vapor recovery unit #2 within 30 days of the unit being returned to gasoline service. After that time, Sprague Energy shall conduct an annual compliance test of vapor recovery unit #2 prior to May 15th of each year. A report containing the test results shall be submitted to the Department within 30 days of the completion of testing in accordance with the Department's stack test protocol.

I. Sprague Energy shall be limited to an annual facility VOC emission limit of 49.9 tons per calendar year.

J. Sprague Energy shall conduct a leak inspection of all equipment at the loading racks and around the carbon absorption units, utilizing sight, sound and smell at a minimum of once per month. All leaks must be repaired as quickly as possible, but within 15 calendar days, with the first attempt at repair made no later than 5 days from the initial detection of the leak.

K. Sprague Energy shall maintain an inspection log documenting routine leak inspections to include date of detection, nature of the leak and detection method, date of repair attempts and methods used, details of any delays in repairs and the final date of repair. Sprague Energy shall make these records available for inspection by the Department.

(18) Distillate Storage Tanks

A. Sprague Energy shall conduct routine inspections of all distillate storage tanks at a minimum of once every month around the perimeter of the tank and roof.

B. The following records shall be maintained at the source and available for inspection by the Department:
   1. inspection log documenting any detected leaks, holes, tears, or other openings and the corrective action taken, and
   2. monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage.

(19) Gasoline Storage Tanks

A. All gasoline storage tanks shall be equipped, maintained and operated such that:
   1. there is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage,
   2. the internal floating roof and the closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof,
   3. all storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times,
   4. all automatic bleeder vents are closed at all times except when the roof floated off or landed on the roof leg supports,
   5. all rim vents, if provided, are to be set to open only when the roof of being floated off leg supports or at the manufacturers recommended setting,
   6. if any holes, tears, or other openings are present the source shall make repairs as soon as practicable, but no later than 15 calendar days with the first attempt at repair to be made no later than 5 days from the initial detection of the leak.
   7. Upon removing an internal floating roof tank from service for cleaning and/or repair, Sprague Energy shall install double seals on the internal floating roofs prior to the storage tank going back into gasoline service to ensure reduction in emissions.

B. Sprague Energy shall comply with the following source inspection requirements:
   1. routine inspections of floating roofs are conducted through roof hatches once every month, and
   2. a complete inspection of the cover and seal is to be performed at least once every ten years and each time the tank is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings and rim seals.

C. The following records shall be maintained at the source and available for inspection by the Department:
   1. inspection log documenting routine monthly inspections of floating roof covers and seals, including LEL readings from such inspections, which are to include explanation of any excessive increases in LEL readings as compared to normal operating conditions,
   2. inspection log documenting all complete inspections of cover and seal to be performed whenever tank is emptied and degassed, at a minimum of once every ten years,
   3. inspection log documenting any detected leaks, holes, tears, or other openings and the corrective action taken,
   4. monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage, and
   5. average monthly product storage temperatures and maximum true vapor pressures or Reid vapor pressures of volatile petroleum liquids.

D. For those tanks that are equipped for dual storage Sprague Energy shall comply with all requirements, as applicable, for storage of gasoline whenever the tank in question is put into gasoline service. No notification is required when products are switched provided the tank is equipped with an internal floating roof for proper storage.

(20) Recordkeeping

For all recordkeeping required by this license the licensee shall maintain records of the most current six year period.

A. Records shall be maintained showing the average annual information for each of the petroleum storage tanks in order to calculate annual VOC emissions:
   1. quantity and type of petroleum liquid stored in each tank,
   2. Reid vapor pressure,
   3. Maximum true vapor pressure,
   4. Average storage temperature,
   5. Average throughput in each tank,
   6. Tank emissions calculated using EPA TANKS program or an alternative approved by the Department,
   7. Tank truck emissions assuming 1.3% of the vapors are displaced during loading (based on assumed capture efficiency of 98.7% as given in 40 CFR Part 63, Subpart R), and
   8. HAP speciation data as given by the American Petroleum Institute (API) or other speciation data as obatined by a supplier.

B. Sprague Energy shall calculate and record the annual total facility VOC emissions (tons) from the loading racks, storage tanks, and fugitive sources (i.e. pumps, valves, flanges).

C. Sprague Energy shall maintain records of all monthly inspections and leak inspections of all equipment utilizing sight, smell and sound.

(21) The term of this license shall be five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2000.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:_____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 12, 1993
Date of application acceptance: November 22, 1993

Date filed with the Board of Environmental Protection: _____

This Order prepared by Stephanie C. Toothaker, Bureau of Air Quality